

ABSTRACT OF THE DISCLOSURE

[0055] Methods and systems provide simulation or medical diagnostic imaging with a graphics processing unit. Data to be processed by a graphics processing unit is transferred from a source to the graphics processing unit without copying by the central processing unit. For example, the central processing unit does not copy data to the cache. Instead, the source of data transfers the data directly to the graphics processing unit or directly to a graphics aperture region of a memory for transfer to the video memory of the GPU. The GPU is then used to generate a two-dimensional or three-dimensional image. The GPU is used to perform a medical imaging process, such as an ultrasound imaging process. The processed data is transferred to a different processor. Since the GPU provides various parallel processors, the GPU may more efficiently perform image processes different from rendering a two-dimensional or three-dimensional image.